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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/027,783	12/19/2001	Hugh L. Brunk	P0513	9584
23735	7590	05/03/2006	EXAMINER	
DIGIMARC CORPORATION 9405 SW GEMINI DRIVE BEAVERTON, OR 97008			PATEL, SHEFALI D	
			ART UNIT	PAPER NUMBER
			2624	

DATE MAILED: 05/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/027,783	BRUNK ET AL.	
	Examiner	Art Unit	
	Shefali D. Patel	2624	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 August 2005.
- 2a) ☒ This action is FINAL.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 14-16, 44-55 and 57-68 is/are pending in the application.
- 4a) Of the above claim(s) 14-16 and 44-47 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 48-55 and 57-68 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 August 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Response to Amendment***

1. The amendment was filed on 22 August 2005.
2. The 35 U.S.C. 112 2<sup>nd</sup> paragraph rejection made to claims 48-53 and 59-65 have been withdrawn.
3. Drawings filed for Figures 7 and 8 are accepted.
4. Claims 1-13, 17-43 and 56 are cancelled.
5. Claims 66-68 are newly added.

### ***Election/Restrictions***

6. Applicant's election with traverse of group claims 14-16 and 44-47 in the reply filed on 22 August 2005 and 15 April 2005 is acknowledged. The traversal is on the ground(s) that these claims are more properly aligned with Group VI. This is not found persuasive because of the reasons cited in the previous office action mailed on 20 May 2005. The examiner has reconsidered this restriction/election. The applicants arguments filed on 15 April 2005 (page 9 of Remarks) are not persuasive.

The requirement is still deemed proper and is therefore made FINAL.

### ***Response to Arguments***

7. Applicants' arguments with respect to claims 48, 54 and 60 (on pages 12-15 under Remarks) have been considered but are moot in view of the new ground(s) of rejection.
8. Applicants' arguments filed on 22 August 2005 (with respect to claims 51, 63 and 66) have been fully considered but they are not persuasive.

Applicants argue on page 14 with regards to the claims 51, 63 and 66. Applicants argue stating "Unlike Crosby, which suggests using metadata associated with an image file as a reference...these claims envision a reference or identified (e.g., attributes) that is based on the image itself, e.g., hash, fingerprint, or content signature." The examiner respectfully disagrees. None of these features (hash, fingerprint or content signature) are recited in any of these claims. Therefore, the examiner can give its

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broadest reasonable interpretation possible. See MPEP 2111 [R-1]. Second, the applicants argue stating “Again the attributes are only determined after the image data is changed or corrected.” This is where the 35 U.S.C. 103(a) rejections come in. Please keep in mind that the examiner had done a 103 rejection using a Cox’s reference to combine with Crosby. The examiner states on page 5 paragraph 12 that Crosby does include an edit list at col. 5 lines 16-24 that is used to change (i.e., edit) the data (or image). The attributes are determined on a changed data by Crosby at col. 12 lines 62-67) stated on pages 5-6 in previous office action. However, Crosby did not define how the orientation was being changed and that is why the examiner has brought in the secondary reference of Cox. The motivation was included by the examiner in the office action as suggested by Cox, stating that “The motivation for doing so is to have a watermarking method be resilient to any distortions introduced by transmission or compression algorithms as suggested by Cox.”

The arguments with regards to motivation to combine these references are stated on page 13 of the Remarks by the applicants. These arguments are not persuasive for the same reasons as above. The applicants state “The motivation used by the examiner to combine Crosby and Cox does not even address linking an image to metadata or fingerprint calculation, e.g., a plural-bit identifier derived from the image itself.” The examiner respectfully disagrees. “a plural-bit identifier derived from the image itself” is not in any claims 51, 63 or 66. And the motivation needed to combine the two references is provided by the examiner in the previous office action. The motivation of linking the two was not necessary as that is not the reason the examiner combined the two references.

### *Claim Rejections - 35 USC § 103*

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim 48-50, 58 and 60-62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwamura (US 6,425,081) in view of Cox et al. (hereinafter, "Cox") (US 5,930,369).

With regard to **claim 48** Iwamura discloses a method of linking an image to metadata contained in a network resource (Figure 4), said method comprising: receiving data corresponding to an image (image data G, col. 26 lines 34-35); changing a *geometric orientation* of the data (by embedding user's information U in the image G, col. 26 lines 40-50, and by generating and embedding the signature S at col. 26 lines 53-67); calculating a plural-bit identifier from the changed data (calculating a hash function, col. 27 lines 13-27); interrogating a network resource with at least a sub-set of the plural-bit identifier to identify metadata associated with the image (col. 27 lines 28-47); and providing metadata associated with the image (col. 28 lines 8-19). Iwamura does not expressly disclose changing a *geometric orientation* of the data. Cox discloses this at element 18, Figure 1, col. 8 line 11, lines 33-47. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the teaching of Cox with Iwamura. The motivation for doing so is to have a watermarking method be resilient to any distortions introduced by transmission or compression algorithms as suggested by Cox; also, by having orientated the data of the image and linking a metadata to an image preventing an unauthorized person to get access as it is well known in the art. Therefore, it would have been obvious to combine Iwamura with Cox to obtain the invention as specified in claim 48.

With regard to **claim 49** Iwamura discloses data comprising image at col. 26 lines 34-36.

With regard to **claim 50** Cox discloses geometric orientation of the data comprising at least one of scaling, rotating, and translating at col. 8 lines 35-37.

With regard to **claim 58** Cox discloses orientation embedded in the image as seen in Figure 7 and its respective portions in the specification.

**Claim 60** recites identical features as claim 48. Thus, arguments similar to that presented above for claim 48 is equally applicable to claim 60. Note, media signal is an image data in both of the references.

**Claim 61** recites identical features as claim 58. Thus, arguments similar to that presented above for claim 58 is equally applicable to claim 61.

**Claim 62** recites identical features as claim 49. Thus, arguments similar to that presented above for claim 49 is equally applicable to claim 62.

11. Claims 51-3, 59 and 63-65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crosby et al. (hereinafter, "Crosby") (US 6,870,547) in view of Cox et al. (hereinafter, "Cox") (US 5,930,369).

With regard to **claim 51** Crosby discloses a method of linking an image to metadata contained in a network resource (Figures 1-2), said method comprising: receiving image data (image at col. 5 lines 3-9), changing a *geometric orientation* of the image data (changing the image data with the edit list at col. 5 lines 16-24, and at col. 9 lines 13-26); interrogating a network resource through use of inherent attributes of the changed image data to identify metadata associated with the image data (col. 5 lines 48-62 and col. 9 lines 46-50); and providing identified metadata (appropriate edit list is known about the image data so the metadata associated data is known as well). Crosby discloses edit list to change the image data, however, Crosby does not expressly disclose changing a *geometric orientation* of the data. Cox discloses this at element 18, Figure 1, col. 8 line 11, lines 33-47. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the teaching of Cox with Crosby. The motivation for doing so is to have a watermarking method be resilient to any distortions introduced by transmission or compression algorithms as suggested by Cox and also, by having orientated the data of the image and linking a metadata to an image preventing an unauthorized person to get access as it is well

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known in the art. Therefore, it would have been obvious to combine Crosby with Cox to obtain the invention as specified in claim 48.

With regard to **claim 52** Cox discloses geometric orientation of the data comprising at least one of scaling, rotating, and translating at col. 8 lines 35-37.

With regard to **claim 53** Cox discloses data comprising image or audio at col. 8 lines 8-9.

With regard to **claim 59** Cox discloses orientation embedded in the image as seen in Figure 7 and its respective portions in the specification.

**Claim 63** recites identical features as claim 51. Thus, arguments similar to that presented above for claim 51 is equally applicable to claim 63.

**Claim 64** recites identical features as claim 59. Thus, arguments similar to that presented above for claim 59 is equally applicable to claim 64.

**Claim 65** recites identical features as claim 53. Thus, arguments similar to that presented above for claim 53 is equally applicable to claim 65.

12. Claims 54-55, 57 and 66-67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gindele et al. (hereinafter, "Gindele") (US 6,785,421) in view of Cox et al. (hereinafter, "Cox") (US 5,930,369).

With regard to **claim 54** Gindele discloses a method of linking an image to metadata contained in a network resource comprising: receiving image data from a wireless device (Figure 2, col. 4 lines 9-10, 57-60); comparing inherent characteristics of the *corrected* image data to a plurality of image records, wherein each image record includes at least image characteristics (col. 12 lines 7-41); upon a successful match with an image record, identifying metadata associated with at least one of the image record and image data (metadata (i.e., feature representation), col. 13 lines 22-31 and col. 17 lines 41-57); and

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providing identified metadata to the wireless device (this information is provided to a computer system which can be remotely located, col. 6 lines 64 to col. 7 lines 1-2). Gindele does not expressly disclose correcting for distortion in the received image data. Cox discloses this at col. 9 lines 29-39. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the teaching of Cox with Gindele. The motivation for doing so is to apply watermark in the image data where the regions of the spectrum that are least affected by the distortion by correcting, eliminating, or determining that area. Therefore, it would have been obvious to combine Gindele with Cox to obtain the invention as specified in claim 54.

With regard to **claim 55** Gindele discloses metadata being an image, col. 17 lines 41-57.

With regard to **claim 57** Gindele discloses wireless device, which could be a telephone at col. 3 lines 41-50.

**Claim 66** recites identical features as claim 54. Thus, arguments similar to that presented above for claim 54 is equally applicable to claim 66.

With regard to **claim 67** Cox discloses steganographic orientation component and said correcting utilizes the steganographic orientation component as seen in Figure 7 and its respective portions in the specification and at col. 9 lines 20-39.

13. Claim 68 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gindele et al. (hereinafter, "Gindele") (US 6,785,421) in view of Cox et al. (hereinafter, "Cox") (US 5,930,369) as applied to claims 54-55, 57 and 66-67 above, and further in view of Iwamura (US 6,425,081).

With regard to **claim 68** Iwamura discloses a hash function as disclosed above in claim 48. The explanation and motivation to combine are as disclosed above in claim 48 and the arguments are not repeated herein, but are incorporated by reference.



*Conclusion*

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shefali D. Patel whose telephone number is 571-272-7396. The examiner can normally be reached on M-F 8:00am - 5:00pm (First Friday Off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jingge Wu can be reached on (571) 272-7429. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Shefali D Patel  
Examiner  
Art Unit 2624

April 28, 2006

  
JINGGE WU  
PRIMARY EXAMINER